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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/15/2001

Ralf Janke

Micronas.6437

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7590

12/28/2004

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EXAMINER

WACHSMAN, HAL D

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/977,484	Applicant(s) JANKE, RALF	
	Examiner Hal D Wachsman	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. The substitute specification filed 9-9-04 has not been entered because it does not conform to 37 CFR 1.125(b) because: statement as to a lack of new matter under 37 C.F.R. 1.125(b) is missing. The Examiner respectfully notes that the Applicant's statement "No new matter has been added" in the Remarks section of the reply filed 9-9-04 does not specifically refer to the substitute specification but follows a couple of sentences stating the status of the claims and thus does not clearly indicate that the substitute specification contains no new matter. Appropriate correction is required.
2. The proposed drawing amendment filed 12-8-03 is improper under 37 C.F.R. 1.121 because under the current 37 C.F.R. 1.121 rules the proposed drawing correction process has been eliminated. 37 C.F.R. 1.121 requires now replacement drawing sheets which are identified in the top margin as "Replacement Sheet". The amended Figure 1 submitted by the Applicant did not have this labeling in the top margin. Appropriate correction is required.
3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not provide proper antecedent basis for "adjustable coefficient values" and "updated adjustable coefficient values". The Examiner respectfully notes that amendments were made to the Abstract with respect to this claimed subject matter but not to the specification.
4. Claims 1-3 and 6-9 are objected to under 37 C.F.R. 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claim 1, lines 8-9, cite "wherein said sensor system receives updated

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adjustable coefficient values via said output line..." however from what exactly are the updated adjustable coefficient values being received via the output line ? This same type of problem also occurs in claim 3, line 8. Claim 1, lines 6-7, cite "adjustable coefficient values" however are these the same adjustable coefficient values previously cited in the claim ? This same type of problem also occurs in claim 3, lines 6-7. Claim 3, line 6, cites "said sensor signal" however the antecedent basis is "sensed signal". The last line of claim 6 cites "analytical unit" which it appears should be "said analytical unit". Claim 9, line 1, cites "adjustable coefficient" however the antecedent basis is "adjustable coefficient values". The examiner asks the applicant to better claim the limitations cited above. While the examiner understands the intentions of the applicant he feels confusion could be drawn from the limitations cited above. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwabara et al. (5,150,301) in view of the Applicant's Admissions of the prior art.

As per claim 1, Kashiwabara et al. (Abstract, col. 10 lines 6-14) disclose

a sensor element that provides a sensed signal in response to a measurement variable". Kashiwabara et al. (Abstract, col. 3 lines 60-62, col. 5 lines 65-67) disclose "a memory device that stores adjustable coefficient values". Kashiwabara et al. (Abstract, figure 1, col. 10 lines 16, 17) disclose "a sensor signal processing unit that processes said sensed signal...to provide a sensor output signal on a output line". Kashiwabara et al. (Abstract, figure 1, col. 10 lines 18-55) disclose "wherein said sensor system receives updated adjustable coefficient values...and stores said updated adjustable coefficient values in said memory device". It appears though that Kashiwabara et al. does not clearly disclose though the integrated circuit sensor unit aspect. However, the Applicant's Admissions of the prior art (page 3 lines 6-15 of the specification) teaches this excepted feature. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the Applicant's Admissions of the prior art to the invention of Kashiwabara et al. as specified above because the incorporation of all the described features on a single integrated circuit would lead to enhanced economy of size.

As per claim 2, Kashiwabara et al. (Abstract, col. 4 lines 48-50) disclose the feature of this claim.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwabara et al. (5,150,301) in view of the Applicant's Admissions of the prior art and Vines et al. (5,006,841).

As per claim 3, Kashiwabara et al. (Abstract, col. 10 lines 6-14) disclose

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"a sensor element that provides a sensed signal in response to a measurement variable". Kashiwabara et al. (Abstract, col. 3 lines 60-62, col. 5 lines 65-67) disclose "a memory device that stores adjustable coefficient values". Kashiwabara et al. (Abstract, figure 1, col. 10 lines 16, 17) disclose "a sensor signal processing unit that processes said sensor signal...to provide a sensor output signal on a second line". Kashiwabara et al. (Abstract, figure 1, col. 10 lines 18-55) disclose "wherein said sensor system receives updated adjustable coefficient values...and stores said updated adjustable coefficient values in said memory device" with the exception of clearly disclosing the use of the first line which is a line for receiving power for receiving the coefficient values. In addition, Kashiwabara et al. does not clearly disclose "a integrated circuit sensor unit that receives power via a first line". However, the Applicant's Admissions of the prior art (page 3 lines 6-15 of the specification) teaches the integrated circuit sensor unit and it is inherent in the art that there must be line to supply power to the integrated circuit for the IC to be operable. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the Applicant's Admissions of the prior art to the invention of Kashiwabara et al. as specified above because the incorporation of all the described features on a single integrated circuit would lead to enhanced economy of size. It appears though that the combination of Kashiwabara et al. and the Applicant's Admissions of the prior art still does not clearly teach the use of the first line which is a line for receiving power for receiving the coefficient values. However, the coefficient values are data and Vines et al. (Abstract, col. 1 lines 35-41) teach the sending of both power and data over the same lines. It would have been obvious to a person of ordinary

skill in the art at the time the invention was made to apply the techniques of Vines et al. to the invention of Kashiwabara et al. and the Applicant's Admissions of the prior art as specified above because as taught by Vines et al. (col. 1 lines 24-29) there was a desirability to use a large number of transducers with a minimum of transmission lines and power requirements while realizing a high degree of accuracy and reliability in the acquisition of data representing the values of the monitored physical quantities.

8. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwabara et al. (5,150,301) in view of the Applicant's Admissions of the prior art as applied to claim 2 above, and further in view of Blossfeld et al. (6,424,143).

As per claim 6, Blossfeld et al. (Abstract, col. 3 lines 1-9) teach the feature of this claim. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Blossfeld et al. to the invention of Kashiwabara et al. and the Applicant's Admissions of the prior art as specified above because as taught by Blossfeld et al. (col. 2 lines 10-15) that by using the internal circuit measurement values, the tendency of the measurement conditions of the sensor module to change can be recognized at the proper time in advance, here prior to a breakdown of sensor function, i.e. before the output measurement signal can no longer be evaluated or is no longer present.

As per claim 7, Blossfeld et al. (Abstract, col. 3 lines 1-9) teach the feature of this claim. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Blossfeld et al. to the invention of Kashiwabara et al. and the Applicant's Admissions of the prior art as specified above

because as taught by Blossfeld et al. (col. 2 lines 10-15) that by using the internal circuit measurement values, the tendency of the measurement conditions of the sensor module to change can be recognized at the proper time in advance, here prior to a breakdown of sensor function, i.e. before the output measurement signal can no longer be evaluated or is no longer present.

As per claim 8, Blossfeld et al. (Abstract, col. 3 lines 1-9) teach the feature of this claim. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Blossfeld et al. to the invention of Kashiwabara et al. and the Applicant's Admissions of the prior art as specified above because as taught by Blossfeld et al. (col. 2 lines 10-15) that by using the internal circuit measurement values, the tendency of the measurement conditions of the sensor module to change can be recognized at the proper time in advance, here prior to a breakdown of sensor function, i.e. before the output measurement signal can no longer be evaluated or is no longer present.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwabara et al. (5,150,301) in view of the Applicant's Admissions of the prior art and Vines et al. (5,006,841) as applied to claim 3 above, and further in view of Blossfeld et al. (6,424,143).

As per claim 9, Blossfeld et al. (Abstract, col. 3 lines 1-9) teach the feature of this claim. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Blossfeld et al. to the inventions of Kashiwabara et al. and Vines et al. as well as the Applicant's Admissions of the prior



art as specified above because as taught by Blossfeld et al. (col. 2 lines 10-15) that by using the internal circuit measurement values, the tendency of the measurement conditions of the sensor module to change can be recognized at the proper time in advance, here prior to a breakdown of sensor function, i.e. before the output measurement signal can no longer be evaluated or is no longer present.

10. A new grounds of rejection has now been established as shown above under 35 U.S.C. 103 due to the correction of the problems that existed with the original set of claims noted in paragraph 13 of the prior Office action.

11. The following references are cited as being art of additional general interest: Dudek et al. (5,270,935) which disclose the determination of estimator correction coefficients, Yasui (6,256,983) which discloses a plant control system with correction coefficient calculators, Tomisawa (4,911,129) which discloses cyclically updating a uniform correction coefficient and Tomisawa (5,394,849) which discloses the adjustment of correction coefficients.


12. No claims are allowed.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D Wachsman whose telephone number is 571-272-2225. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Hal D Wachsman  
Primary Examiner  
Art Unit 2857

HW  
December 23, 2004